

**Attachment E**  
**References are to Findings for Powerhouse**  
**Clean Air Act (CAA) Potential Areas of Noncompliance (AON) and Areas of Concern (AOC)**  
**2014 NEIC Multimedia Compliance Investigation of the Radford Army Ammunition Plant (RFAAP)**

CAA – Potential Areas of Noncompliance				
#	Page	Area/Unit	NEIC Comment/Finding	RFAAP Response or Clarification
6	33	Powerhouse	<p>RFAAP exceeded the opacity limits for the boilers. RFAAP reported exceedances in its quarterly boiler excess emission reports and Title V semiannual reports.</p> <p>NEIC reviewed electronic data to determine if any additional opacity exceedances occurred that were not reported by RFAAP. Additional exceedances not reported by RFAAP are listed below:</p> <ul style="list-style-type: none"> <li>• January 1 through June 30, 2011: 5 exceedances</li> <li>• July 1 through December 31, 2011: 6 exceedances</li> <li>• January 1 through June 30, 2012: 36 exceedances</li> <li>• July 1 through December 31, 2012: 135 exceedances</li> <li>• January 1 through June 30, 2013: 56 exceedances</li> <li>• July 1 through December 31, 2013: 49 exceedances</li> </ul>	<p>As a general response, it is noted that BAE Systems is not responsible for any operations prior to 1 July 2012. As such, only findings related to events from 1 July 2012 through 31 December 2013 are addressed in this response.</p> <p>Although the NEIC inspection report lists 287 discrete powerhouse exceedances, this represents an over-counting of events per the Title V requirement for addressing exceedances on the basis of one-hour blocks. For example, in one (1) case a 24-minute opacity exceedance that occurs within a single block-hour is counted as three separate events in NEIC's count – the first 6-minute block is not counted (because a single 6-minute exceedance is allowed under the permit), but the subsequent 18 minutes are counted as three (3) events although these are one (1) event for compliance purposes under the Title V permit. Properly counted, the 287 "exceedances" identified in the inspection report comprise 187 discrete block-hour periods for which BAE provides the following responses. Out of the 187 events, the following breakdown was observed:</p> <ul style="list-style-type: none"> <li>• 157 were not identified as reportable (i.e., did not exceed the permit limit of one 6-min block above 20% per hour).</li> <li>• 22 events were identified to have been previously reported to VDEQ (8/4/2012 at 14:48 hrs; 8/4/2012 at 16:30 hrs; 8/7/2012 at 05:18 hrs; 8/11/2012 at 18:00 hrs; 10/03/2012; 10/26/2012 at 02:00 hrs; 11/08/2012 at 15:00 hrs; 11/09/2012 at 00:30 hrs; 11/09/2012 at 02:00 hrs; 11/09/2012 at 03:00 hrs; 11/13/2012 at 00:00 hrs; 12/07/2012; 12/29/2012; 03/15/2013 at 08:42 hrs; 03/15/2013 at 22:24 hrs; 4/05/2013; 06/15/2013 at 01:42 hrs; 06/30/2013; 07/13/2013 at 01:00 hrs; 9/16/2013 at 06:06 hrs; 9/16/2013 at 12:06 hrs; 12/23/2013).</li> <li>• Two (2) events were identified to have been associated with a COMS malfunction that was the subject of a letter to VDEQ (8/2/2012 at 13:00 and 14:00 hrs).</li> <li>• Five (5) events were inadvertently not reported due to human error (10/19/2012, 10/22/2012, 10/26/2012, 11/17/2012, 8/25/2013).</li> </ul>

**Attachment E**  
**References are to Findings for Powerhouse**  
**Clean Air Act (CAA) Potential Areas of Noncompliance (AON) and Areas of Concern (AOC)**  
**2014 NEIC Multimedia Compliance Investigation of the Radford Army Ammunition Plant (RFAAP)**

CAA – Potential Areas of Noncompliance				
#	Page	Area/Unit	NEIC Comment/Finding	RFAAP Response or Clarification
				<ul style="list-style-type: none"> <li>One (1) event was identified to have been reported (4/1/2013), but as a 12-minute event instead of an 18-min event, because one block was equal to 20.00% opacity and was not caught by the &gt;20% screening logic.</li> </ul> <p>The overwhelming majority of the events identified by NEIC were not determined to be reportable, and the root cause of this is the differential in methodology employed by NEIC. The dataset that NEIC requested was based a download from Active Factory at 1-minute intervals; this data was subsequently used to calculate each 6-minute block average from 6 data points. RFAAP employs two methods for screening COMS data: (1) the daily file from the Powerhouse's Data Acquisition Computer (DAC) which automatically performs and stores the calculation based on a larger sampling set, or (2) data downloaded from Active Factory at 15-second intervals, with each block average calculated from 24 data points. Because NEIC used a different (and less rigorous) calculation methodology, the results obtained differ from the official dataset maintained by RFAAP and used for regulatory reporting.</p> <p>A total of five (5) events were identified as inadvertently having not been reported, with an additional event being reported as a 12-minute duration instead of an 18-minute event. One(1) of the events in this category (26 October 2012) was communicated to VDEQ, but upon review, had not made it into the event description included in the NOV/Consent Order. During this same data time period (1 July 2012 through 31 December 2013), RFAAP identified and reported 703 events to VDEQ. Therefore, these six (6) events comprise less than 1% of the total opacity events over the data review period. These events will be reported to VDEQ on the Title V Semiannual Monitoring Report for 1H2015 due on 28 August 2015.</p> <p>The majority of the six (6) events that were not previously reported occurred within 2012. This is due to the fact that in 2013 new data screening methodologies and enhanced tools were developed and implemented. The event that was misreported on duration due to a missed block that was equal to 20.00% occurred on 1 April 2013. It also was</p>

**Attachment E**

**References are to Findings for Powerhouse**

**Clean Air Act (CAA) Potential Areas of Noncompliance (AON) and Areas of Concern (AOC)  
2014 NEIC Multimedia Compliance Investigation of the Radford Army Ammunition Plant (RFAAP)**

<b>CAA – Potential Areas of Noncompliance</b>				
<b>#</b>	<b>Page</b>	<b>Area/Unit</b>	<b>NEIC Comment/Finding</b>	<b>RFAAP Response or Clarification</b>
				during 2013 that the spreadsheet formula logic that led to this misidentification was corrected to screen out “greater than or equal to 20%” instead of just “greater than 20%,” as an internal review during report development identified other instances where this situation could occur.

<b>CAA – Areas of Concern</b>				
<b>#</b>	<b>Page</b>	<b>Area/Unit</b>	<b>NEIC Comment/Finding</b>	<b>RFAAP Response or Clarification</b>
C	36	Powerhouse	NEIC’s review of the boiler opacity data showed that there is null data from January 2011 through May 2011. Opacity readings from December 30, 2012, through January 4, 2013, equaled the same value of 23.5. It is unlikely that the opacity did not vary during this 5-day time frame. It is unclear if these problems are with the analyzer or the data acquisition device.	The Active Factory data was not available from 20 December 2012 through 4 January 2013 due to a computer failure of the server. Because this continuous data is not required under the Title V permit (indeed the Title V permit does not require the use of COMS), it was not reported as a data loss with respect to this dataset. However, this event is discussed in the 1H2013 Title V Semiannual Monitoring Report as a deviation for the SCR because its local data historian simultaneously experienced a failure and there was no redundancy in its collection with Active Factory also down.